# Wide Bandwidth Technology (WBT)

Wide Bandwidth Technology (WBT) programs provide research, design, and engineering services in Information Technology and Telecommunications for DoD missile defense missions through the Information Science Technology Directorate. Warfighters lack the global electronic reach back/reach forward and quick response that are important to improve situational awareness. The technical communications systems for both voice and data available at these deployed locations vary widely and range from full telephone and Internet connectivity in urban settings to non-existent or very primitive methods in remote desert/jungle environments.

WBT will enhance the warfighter's ability to exchange basic reporting information, audio/video transmissions, mission planning/rehearsal data, and time-critical mission execution data. These functions will reduce the risks associated with unknown, unfriendly, or unexpected situations. Deployed troops will be given the proper tools that are properly integrated with the ability to collect, share, and analyze data in a time-critical manner that supports cooperative decision making between a continental United States (CONUS) home station and remotely deployed elements.

Warfighter requirements in terms of bandwidth, storage capacity, processing power, and response time will be determined. Data resources, for data warehousing and mining development, will also be surveyed. This will include, but not be limited to, target/threat, image, map, and terrain databases. Connecting the deployed warfighter to services located in CONUS requires stable, global communications links. WBT programs will leverage off high bandwidth terrestrial and satellite telecommunications soltuions they are investigating and implementing.

### WBT Programs

• A Collaborative Unified Environment (CUE) for the advanced algorithm development and test teams.

• High bandwidth data transmission capability for the Ballistic Missile Defense Fusion Toolbox (BFT) team's development efforts for real time testing of Ballistic Missile Defense System algorithms.

• Mission and resource management support to the division architecture team. New and innovative ideas for intelligent agents will be developed for this.

### WBT Enabling Techonologies

WBT enabling technologies are appropriate for:

• Run Time Infrastructure development and benchmarking.

• Application-to-Application Virtual Private Network technology.

• Imagery and Video compression algorithm developments.

• Latency monotoring technologies.